

Red Lake operation

Earning the right to grow to ~200 koz pa
 (FY24 guidance 170koz ±5%)

www.evolutionmining.com.au



Location:	Ontario, Canada, approximately 535km north-west of Thunder Bay
Producing:	Gold
Management:	Owner operator
Site Management:	John Penhall - Vice President Red Lake Operations Thomas Lethbridge - General Manager
Mine Site contact number:	+1 807 735 2077
Acquisition:	31 March 2020

Located on the traditional lands of the Waubuskang and Lac Seul First Nations People.

- High-grade asset situated on one of North America's highest-grade gold camps with outstanding exploration potential
- Tier one mining jurisdiction
- Significant resource conversion potential - resource base increased to 12.3Moz from 7Moz (75%) since acquisition, net of mining depletion
- Near mine targets provide high-grade potential to come into the mine plan
- Regional potential for large scale discovery in younger under-explored geology
- District scale ~710km² land package in a premier gold region
- Current mine life to 2040

1. Production and cost guidance as at 20 July 2023. AISC is based on Gold price of A\$2,400/oz (royalties) and Copper price of A\$12,500/t (By-product credits)
 2. TRIF: Total recordable injury frequency. The frequency of total recordable injuries per million hours worked. Results above are based on a 12 month moving average to June 2023
 3. See ASX release 16 February 2023, "[Annual Mineral Resources and Ore Reserves Statement](#)"

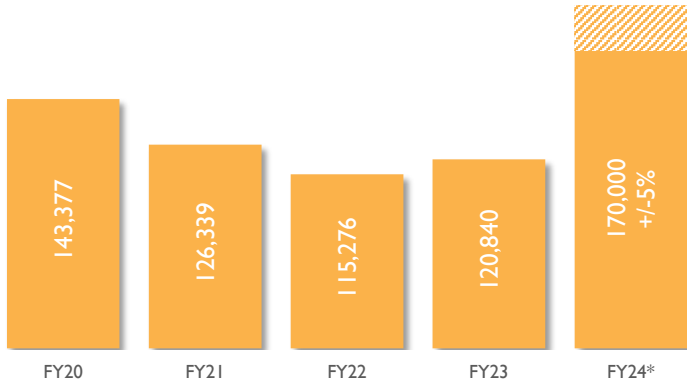
⇒ Key Facts

- 100% ownership
- **FY24F:** 170,000oz +/-5%¹
- **FY24F AISC:** A\$2,000/oz +/-5%¹
- **TRIF:** 12.0² (12mma)
- **Mineral Resources:** 60.4Mt at 6.35g/t Au for 12.3Moz³
- **Ore Reserves:** 13.0Mt at 6.90g/t Au for 2.9Moz³
- **Operator:** Owner-miner
- **Minerals:** Gold, silver
- **Mineralisation type:** Orogenic gold deposit
- **Land package** 710km²
- **Mine life:** to 2040
- **Power:** Grid power via 115kv line from Ear Falls (33MW allotment) hydro power
- **Mining method:** underground
- **Processing:** Campbell mill 800ktpa; Red Lake mill 350ktpa
- **Residential:** ~900 local jobs
- **Access:** airport and sealed highway

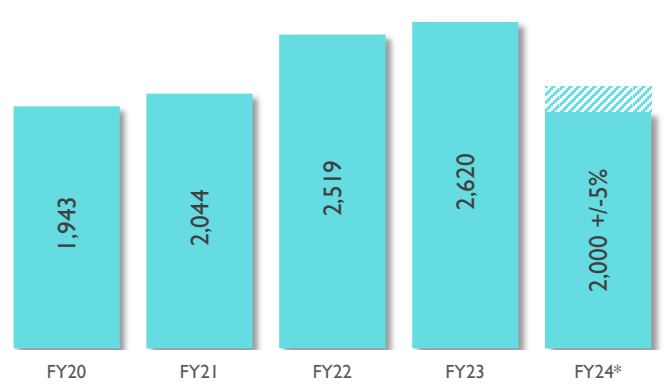
3. See ASX release 16 February 2023 "Annual Mineral Resources and Ore Reserves Statement".

Snapshot

Gold production (oz)



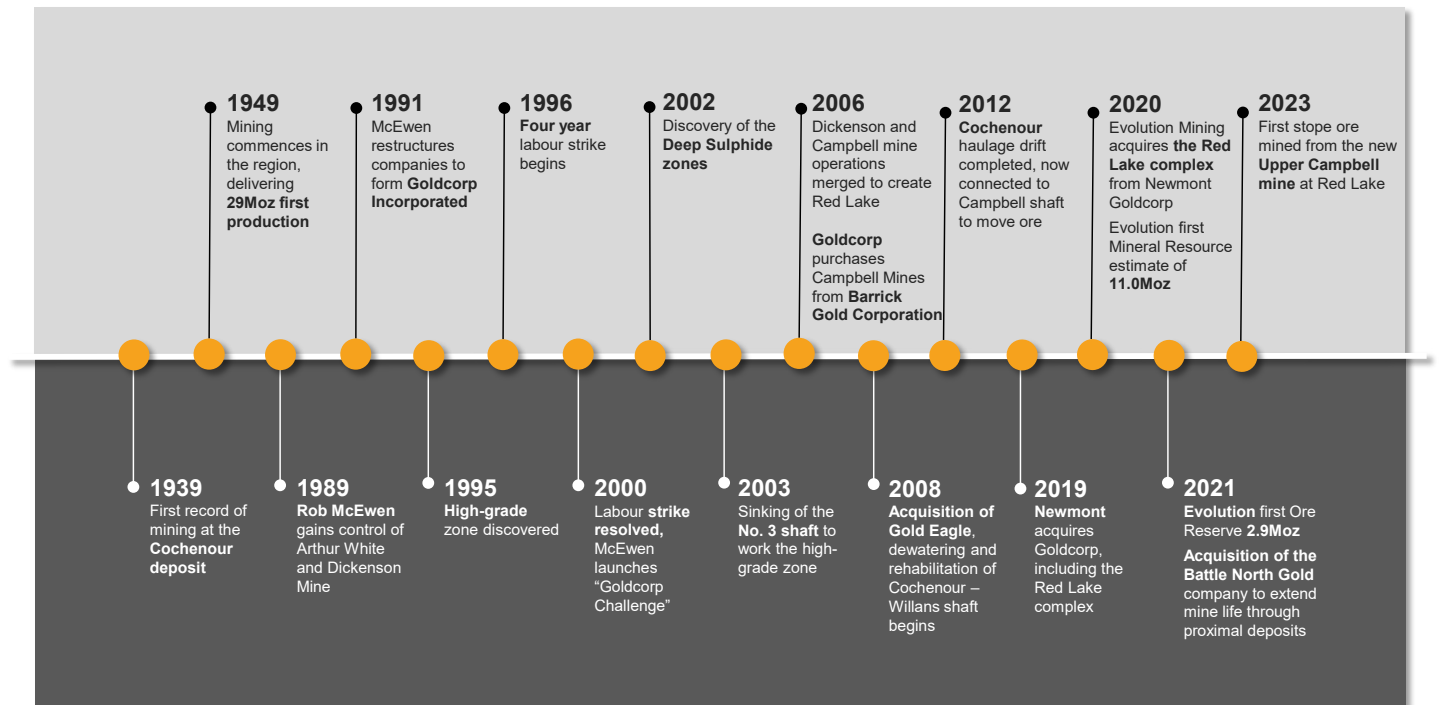
AISC (\$/oz)



* denotes guidance for FY24

Historic performance data can be accessed at our [Interactive Analyst Centre™](#)

History - Red Lake



Mineral Resources (Dec 22)



Ore Reserves (Dec 22)



1. See ASX release entitled "[Mineral Resources and Ore Reserves Statement](#)" released to ASX on 16 February 2023 and available to view at www.evolutionmining.com.au

Sustainability

The work we do on sustainability reflects our values driven approach to creating measurable value for our stakeholders through safe, reliable, low-cost gold production in an environmentally and socially responsible way. See our [Annual and Sustainability report](#) provided on our website which describes our approach and performance in the areas of health and safety, environmental stewardship, helping our communities thrive, cultural heritage, innovation and the development of our people.

Health and Safety

Integral to the sustainability of our business is the health, safety and wellbeing of our people. We have a strong health, safety and wellbeing culture with the ambition of being an injury free workplace. The Red Lake operation has a focus on material and critical risk management, increased reporting, incident review and learning.

Environment

We believe in striving beyond legislative compliance to achieve best practice and to build trust and meet the expectations of the communities in which we operate. We are focused on enhancing environmental stewardship in line with our Net Zero Commitment and Sustainability Principles through the implementation of our sustainability performance standards and life of mine environmental management plans across all of the operation.

Climate-related risks including water security and extreme weather and health events remain a focus for Red Lake. The operation has a positive water security position, with raw water supply assessed as low risk. Extreme weather and pandemic response plans are in place to manage events such as COVID-19 incidents and Forest Fires. Cyanide destruction systems have been adopted to reduce the concentration of cyanide discharge which is also supported by certification to the International Cyanide Management Code, which is due for recertification in 2024. For further information please visit our website.

Community

Securing the support of communities in which we operate is core to our operation. Our focus remains on building trusted partnerships with our First Nation Partners in protecting their cultural heritage and supporting the delivery of their goals and that of other Community Groups. Collaboration Agreements are in place with the Wabauskang and Lac Seul First Nation Partners.

We partner with with our communities to achieve meaningful outcomes and generate shared value. A local approach is critical to support local economic benefit by prioritising local procurement, creating local employment and facilitating local training opportunities.

Our strong support in the Red Lake community includes:

- Support for the Shared Spirits (partnership with the First Nations Partners)
 - Partnership with Northern College and Sioux Lookout Friendship accord for First Nation common core underground mining training
 - Supporting a diverse workforce where all feel they belong including First Nation Peoples which make up 10% of the operation
 - Supporting a predominantly (70%+) local workforce and local procurement initiatives
 - Supporting Industry groups such as the Ontario Mining Association
 - Investing in Community projects supporting education, environment, diversity, health, arts, culture and recreation
 - Operation of a community recreation center including swimming pool, bowling, curling rink, fitness center and gymnastics
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Mining

The Red Lake operation is comprised of the consolidation of three major historical mining centres (Red Lake, Campbell and Cochenour) and two processing plant facilities (Red Lake and Campbell mills).

Red Lake, Campbell and Cochenour

Ore is currently hoisted to surface through two production shafts - Cochenour and Campbell ore via the Reid Shaft and Red Lake via the #3 Shaft. The Campbell Young Dickenson (CYD) surface decline commenced in July 2021 and will provide access to the historic Upper Campbell resource. Ventilation is a push-pull system consisting of 4 intake and 5 exhaust fans and 15 underground booster fans.

Mining dates back as far as 1939 at the Cochenour deposit, and the current Red Lake Gold Mines organisation dates to the 2006 acquisition of the Campbell mine by Goldcorp.

Mining is carried out with a combination of company-owned and contractor-owned equipment.

Mining method/s:

Access:	Sub-level open stoping, avoca and modified avoca stoping Access to Cochenour, Balmer and Lower Campbell are via the Cochenour, #3 and Reid shafts.
Ore mined:	Upper Campbell is to be accessed via declines driven from surface
Ore milled:	FY23: 814kt at 5.06g/t mined
Mining contractor:	FY23: 815kt at 5.06g/t produced
Jumbos:	A mix of owner-operator and contractor mining 2 x Sandvik DD311 single booms, 1 x Sandvik 6-240 twin boom, 1 x Sandvik D07-26 twin boom,
Bolters:	1 x Sandvik DD420-40 twin boom, 3 x Sandvik DD321-40 twin booms
Loaders:	1 x Maclean SSB (scheduled for decommission in Jan 2024), 1 x Sandvik Cable Bolter (hired) 1 x Sandvik EJC 61D, 1 X Sandvik EJC 65D, 2 x Sandvik LH203, 4 x CAT R1300G, 4 x CAT R1600G, 3 x CAT R1600H, 2 x CAT R1700K, 2 x Epiroc ST1030 (BEV), 2 x Epiroc ST14 (BEV)
Trucks:	2 x Sandvik EJC 417, 5 x CAT AD30, 1 x Epiroc MT42 (BEV), 2 x Sandvik TH320

Geology

The Campbell-Red Lake-Cochenour gold deposits are located within the Red Lake greenstone belt of the Superior Tectonic Province. This belt is host to one of Canada's largest and richest Archean gold deposits producing more than 26 million ounces of gold since the 1930s. The Red Lake Greenstone Belt is subdivided into several rock assemblages recording magmatic and sedimentary activities that occurred from 3.0 to 2.7 billion years ago. The tholeiitic and komatiitic metabasalts of the Balmer Assemblage are the oldest volcanic rocks in the belt and are host to the major gold deposits in the Red Lake district, including the Campbell-Red Lake-Cochenour.

Gold mineralisation is mainly associated with silicification and sulphide minerals that replace carbonate veins, breccias and wall rock selvages. The carbonate veins and breccias, which are composed of ankerite \pm quartz, were formed before and/or in the early stage of penetrative ductile deformation, whereas silicification, sulphide replacement and gold mineralisation were coeval with deformation.



Processing

RLO encompasses two separate gold ore processing plants; Campbell and Red Lake.

The Campbell processing plant consists of a three stage crushing circuit and two stage grinding circuit with gravity concentration on cyclone underflow, sulphide flotation, pressure oxidation, oxide leach, flotation tails leach, CIP and cyanide detox.

The Red Lake process plant consists of a two-stage crushing circuit, a two-stage grinding circuit with gravity concentration on cyclone underflow, leach, CIP, Cyanide Detox, sulphide flotation and flotation concentrate filtering

	Campbell	Red Lake
Annual average throughput rate	0.8Mtpa	0.35Mtpa
Crushing	Jaw crusher 2 x cone crushers	Jaw crusher, cone crusher
Grinding	Rod mill, ball mill	Ball mill, vertimill
Gravity	Knelson concentrators, gravity table	Knelson concentrators, gravity table
Flotation	4 x Outotec tank, rougher cells	Rougher, scavenger, cleaner trough cells
Oxidation	Autoclave pressure, oxidation on flotation concentrate	N/A
Leaching	Flotation tails leach, flotation concentrate, CIL	Cyanide leaching
Adsorption	Flotation concentrate, CIL, CIP adsorption circuit	CIP

Process flowsheet - Red Lake and Campbell Mills

